

# **Course 6317A: Upgrading Your SQL Server 2000 Database Administration (DBA) Skills to SQL Server 2008 DBA Skills**

## **Prerequisites**

Before attending this course, students must have experience developing or administering SQL Server 2000 databases.

## **Module 1: An Introduction to SQL Server 2008**

This module will help students to understand the new features and overall architecture of SQL Server 2008.

### **Lessons**

- Lesson 1: The Evolution of SQL Server
- Lesson 2: SQL Server 2008 Architectural Components

## **Module 2: Installing and Upgrading to SQL Server 2008**

This module will help students to understand how to plan for a SQL Server 2008 installation, upgrade, and migration.

### **Lessons**

- Lesson 1: Preparing for SQL Server 2008 Installation
- Lesson 2: Installing SQL Server 2008
- Lesson 3: Upgrading a SQL Server 2000 Instance
- Lesson 4: Configuring a SQL Server Installation
- Lesson 5: Using SQL Server Configuration Manager

### **Lab: Upgrading SQL Server 2000 to 2008**

- Exercise 1: Analyzing the SQL Server 2000 Instance
- Exercise 2: Upgrading to SQL Server 2008
- Exercise 3: Validating the Upgrade
- Exercise 4: Reviewing SQL Server Books Online

## **Module 3: Storage Enhancements in SQL Server 2008**

This module will teach students about changes to data storage, including data types, indexes, and partitions in SQL Server 2008.

### **Lessons**

- Lesson 1: Data Type Enhancements
- Lesson 2: Table Partitioning
- Lesson 3: Indexing Enhancements
- Lesson 4: Tuning Indexes (Optional)

### **Lab: Optimizing SQL Server 2008**

- Exercise 1: Partitioning Tables
- Exercise 2: Using the Database Engine Tuning Advisor (Optional)

## **Module 4: SQL Server 2008 Administration Enhancements**

This module will help students to understand administration tools that are new or enhanced with SQL Server 2008.

### **Lessons**

- Lesson 1: Administration Tools Overview
- Lesson 2: Using SQL Server Management Studio
- Lesson 3: Using the sqlcmd Utility
- Lesson 4: Using Windows PowerShell

### **Lab: Administrating SQL Server 2008**

- Exercise 1: Using SQL Server Management Studio
- Exercise 2: Using SQL Server Command-Line Management
- Exercise 3: Using PowerShell

## **Module 5: Security Enhancements with SQL Server 2008**

This module will help students to understand enhancements and additions to SQL Server 2008 Security.

### **Lessons**

- Lesson 1: SQL Server 2008 Security Overview
- Lesson 2: Managing SQL Server 2008 Security
- Lesson 3: Managing Permissions
- Lesson 4: Managing Keys and Certificates
- Lesson 5: Data Encryption

### **Lab: Securing a SQL Server 2008 Database**

- Exercise 1: Managing Principals
- Exercise 2: Managing Securables
- Exercise 3: Managing Permissions
- Exercise 4: Configuring Column Encryption
- Exercise 5: Transparent Data Encryption

## **Module 6: SQL Server 2008 Disaster Recovery**

This module will teach student how to prepare for and recover from potential database disasters.

### **Lessons**

- Lesson 1: Database Backup
- Lesson 2: Backup Compression
- Lesson 3: Database Restoration
- Lesson 4: Database Snapshots

### **Lab: SQL Server 2008 Disaster Recovery**

- Exercise 1: Making a Copy-Only Backup
- Exercise 2: Using Compression for Backup Files
- Exercise 3: Creating the Database Snapshot
- Exercise 4: Restoring From a Database Snapshot

## **Module 7: High Availability in SQL Server 2008**

This module will teach students how to maintain availability to their SQL Server data even through server downtime.

### **Lessons**

- Lesson 1: Log Shipping
- Lesson 2: Database Mirroring
- Lesson 3: Determining the Best High Availability Solution

### **Lab: SQL Server 2008 High Availability**

- Exercise 1: Implementing Log Shipping
- Exercise 2: Implementing Database Mirroring
- Exercise 3: Implementing Peer-to-Peer Replication

## **Module 8: Replication Enhancements in SQL Server 2008**

This module helps students to take advantage of the replication enhancements in SQL Server 2008.

### **Lessons**

- Lesson 1: New Types of Replication
- Lesson 2: Additional Replication Enhancements

### **Lab: Implementing Replication**

- Exercise 1: Implementing Peer-to-Peer Transactional Replication
- Exercise 2: Implementing HTTP Replication

## **Module 9: SQL Server 2008 Policy-Based Management**

The students will be introduced to new SQL Server 2008 policy-based management features.

**Lessons**

- Lesson 1: Understanding Central Management Servers
- Lesson 2: Understanding Policy-Based Management
- Lesson 3: Implementing Policy-Based Management

**Lab: Using Policy-Based Management**

- Exercise 1: Creating a Central Management Server and Server Group
- Exercise 2: Creating and Applying a Policy

**Module 10: SQL Server 2008 Monitoring Enhancements**

This module helps students to use SQL Server 2008 monitoring features.

**Lessons**

- Lesson 1: Monitoring a Database
- Lesson 2: Using DDL Triggers
- Lesson 3: Auditing in SQL Server
- Lesson 4: Event Notifications
- Lesson 5: Using Static and Dynamic Metadata

**Lab: Monitoring SQL Server 2008**

- Exercise 1: Monitoring SQL Server Activity
- Exercise 2: Tracing SQL Server Activity
- Exercise 3: Using DLL Triggers
- Exercise 4: Using Event Notification

**Module 11: SQL Server 2008 Performance**

This module helps students to take advantage of the performance enhancements in SQL Server 2008.

**Lessons**

- Lesson 1: Managing Workloads with Resource Governor
- Lesson 2: Monitoring Performance with the Data Collector
- Lesson 3: Managing Performance with Plan Freezing

**Lab: Managing SQL Server Performance**

- Exercise 1: Using Resource Governor
- Exercise 2: Using the Data Collector
- Exercise 3: Using Plan Freezing